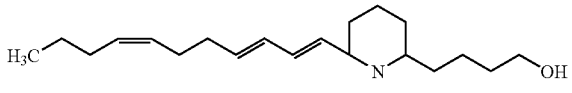
culture plates with carrier (control) and varying euglenophycin toxin (25, 50, 100 mg/L final concentration), with and without 5-fluorouracil and maintained in dimethyl sulfoxide. Growth was monitored by colorimetric change associated with respiration using MTS or MTT assay).

While the invention has been described with reference to details of the illustrated embodiment, these details are not intended to limit the scope of the invention as defined in the appended claims. The embodiment of the invention in which exclusive property or privilege is claimed is defined as follows:

The invention claimed is:

1. A purified and isolated compound extracted from *Euglena sanguinea*, wherein the compound has the structure:



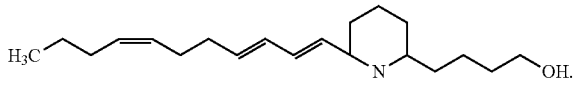
and wherein the compound is toxic against plant and mammalian cells.

2. The compound of claim **1** wherein the compound is an alkaloid with a molecular weight of about 288 Da to about 306 Da.

3. A composition comprising the compound according to claim **2**, wherein the compound is present at a concentration range of about 0.3 mg to about 30 liter of the composition.

4. The compound of claim **1** wherein the composition is toxic against algal cells.

5. A method of controlling undesirable algal bloom comprising contacting a waterway with an herbicidal composition comprising an effective amount of an isolated and purified compound having the structure:



6. The method of claim **5** wherein the composition is isolated from *Euglena sanguines.*

7. The method of claim **5**, wherein the compound is present in a concentration range of about 0.3 mg per liter of the herbicidal composition to about 30 mg per liter.

8. The method of claim **5**, wherein the undesirable algal bloom is selected from the group consisting of: *Microcystis aeruginosa, Planktothrix, Gomphonema parvum, Scenedesmus dimorphus*, and *Oocystis polymorphs.*

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